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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,487	10/17/2003	Jock D. MacKinlay	131755	7951

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EXAMINER	
MA, CALVIN	

ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
12/29/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/687,487	MACKINLAY, JOCK D.	
	Examiner	Art Unit	
	CALVIN C. MA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 and 25-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23, 25-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The applicant's reply filed on 8/17/2008 has been entered and considered by the examiner, the prior art Firester US Patent 6,611,241 is introduced for new grounds of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-23 and 25-29 are rejected under 35 U.S.C. 102 (e), as being anticipated by Firester et al (US Patent: 6,611,241).

As to claim 1, Firester discloses a method of managing seams (i.e. the overlapping portion resultant projected display area that is the result of the modular display 110 not directly covered by the AMLCD sub-image 112 which is a seam area around the cores display area which requires compensation and fin tuning) (see Fig. 4, Col. 7, Lines 45-67) comprising the steps of:

determining a composite display (i.e. the display made of DM1...DM6 display modules) comprising at least two external displays, each display associated with a view into a contiguous virtual display space and being separated from an adjacent display by a seam that defines an area that cannot display output information (i.e. there is a clear display boundary at the edge of each of the underlying AMLCD panel unit where the AMLCD does not display information by which the lens magnifies) (see Fig. 16, Col. 16, Lines 19-30);

determining seam information associated with the seam area (i.e. the camera 108 clearly can pick up the existence of the boundary area between each of the modules that are seams where the underlying LCD are apart which requires adjustment to allow the resultant image to be consistent) between the at least two displays (see Fig. 20, Col. 18, Lines 35-68);

determining output information (i.e. the computer determines the image data to be feed into the various modular display panel 714) (see Fig. 18-19, Col. 17, Lines 30-55);

determining display layout adjustments for output information associated with views into the contiguous virtual display space, the display layout adjustments being based on the determined seam information and the output information (see Fig. 20, Col. 18, Lines 35-68); and

displaying the output information for each display based on the determined display layout adjustments (see Fig. 18-19, Col. 17, Lines 30-55).

As to claim 12, Firester teaches a system for managing seams in composite display system comprising:

an input/output circuit (i.e. the network for display is comprising of input/output circuit) (see Fig. 19);

a memory (the memory storing the source image for the computer PC 720) (see Fig. 16);

a processor (CPU) (see Fig. 19);

a seam information determination circuit, that determines seam information for a seam between at least two external adjacent output displays that can not display output information (i.e. the overall image adjustment system that utilizes the camera 930 to take the status of the overall display is aware of the seam between the modules and test for the uniformity of the images effect on the overall display with the respect of the boundary areas) (see Fig. 20, Col. 18, Lines 35-68);

a display layout adjustment circuit that determines display layout adjustments for the output image information associated with views into a contiguous virtual display space, the display layout adjustments being based on the determined seam information and the output information, and where the processor displays the output information for each display based on the determined display layout adjustments (i.e. the correction based on the camera captured images is adjusted to compensate for the boundary conditions after which the parameter is adjusted and the image frame is fed into the display) (see Fig. 18, 19, 20, Col. 17 Line 30 - Col. 18, Line 68).

As to claims 23 and 25, see claim 1 above, both claims 23 and 25 are analyzed to be the same in scope as claim 1, and are rejected on the same ground, since Firester disclosed the computer based system where by the software and device are implemented to accomplish the method of display correction (see Fig. 20, Col 18, Lines 20-68).

As to claim 2 and 13, Firester teaches where the seam information is determined based on at least one of: retrieve stored information (i.e. the camera sense the resultant image which is compared with the source image which will naturally pick up the boundary area of the panel which will exhibit seams that requires adjustment of the panels to minimize these boundary areas) (see Fig. 20, Col. 18, Lines 36-64).

As to claims 3 and 14, Firester teaches where determining the seam information based on retrieving stored display information comprises: determining display information for the at least two displays; and adding the bezel based seam information for each of the at least two displays (i.e. the camera based image analysis captures the modular display in its entirety which would naturally include bezel area) (see Fig. 20).

As to claims 4 and 15, Firester teaches wherein the seam information is dynamically (i.e. camera based system is a computer driven dynamic seam detection system) determined based on sensor (930) information (see Fig. 20, Col. 18, Lines 36-64)

As to claims 5 and 16, Firester teaches wherein manually determining the seam information comprises measuring the area between the displays (i.e. the X-Window System is said to allow the operator to communicate with the system and enact size and other image changes this indicates that the user through the operating system can adjust the display effect which include the adjustment of the seam area where redundant display error may occur) (see Fig. 18-19, Col. 18, Lines 20-33).

As to claims 6 and 17, Firester teaches where determining the output information (system 10 an operating system which include component (16) which intercept the two displays) for each display associated with a view comprises intercepting output information from at least one of: the operating system level (i.e. the X-Window System) (see Fig. 19, Col. 18, Lines 20-45).

As to claims 7 and 18, Firester teaches where determining layout adjustments based on the determined seam information and output information comprises at least one of:

determining display layout adjustments based on seam constrained movement of object elements and output information by adjusting an object element originally determined to be output across two adjacent displays and the intervening seam area to move off the seam area for display on only one of the two adjacent displays; and (e.g., display controller (20) configured to generate display control signals (28) in response to display signal received from the image generator (22); and

determining display layout adjustments based on output information and at least one virtual display space repetition area defined in a region around the seam by adjusting output information originally determined to be output in the at least one repetition area to be repeated in two adjacent displays to provide contextual guidance for the display (i.e. the seam area of the AMLCD display which forms the redundant error creates repetitive display information in between two sub modules at the seam area which requires adjustment of image to return to a nature image display effect will have at least one portion of the display area mutually covered whereby a seamless transition is created to allow user a contextually smooth display system) (see Fig. 19, Col. 18, Lines 35-67).

As to claims 8 and 19, Firester teaches wherein determining the layout adjustments are determined by a least one of: one pixel (i.e. the seam area of the AMLCD display which forms the redundant error creates repetitive display information in between two sub modules at the seam area which requires adjustment of image to return to a nature image display effect will have at least one pixel in common) (see Fig. 19, Col. 18, Lines 35-67).

As to claims 9 and 20, Firester teaches wherein seam constrained movement is based on at least one of: nearest-point-to-nearest-point (i.e. the computer error correction of redundant images movement must be based on nearest-point-to-nearest-point when creating a contiguous display from the modular individual display unit) (see

Fig. 19, Col. 18, Lines 50-57).

As to claims 10 and 21, Firester teaches where the display layout adjustments are performed by the output information generator (i.e. the CPU of the computer adjust the images) (see Fig. 19).

As to claim11, Firester teaches where the output information is displayed in the seam (i.e. the outputting projected final resulting image is in the seam area) (see Fig. 4).

As to claim 17, Firester teaches where determining the output image information for each display is based on intercepting the output information from at least one of: a device driver level (i.e. the sensor CCD input information is one of device driver driven input) (see Col. 19, Lines 37-63).

Response to Arguments

4. Applicant's arguments with respect to claim 1-23 and 25-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CALVIN C. MA whose telephone number is (571)270-1713. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma
December 15, 2008

/Chanh Nguyen/
Supervisory Patent Examiner, Art Unit 2629